

AMENDMENTS TO THE CLAIMS

Please cancel claims 49, 50, and 52-68 without prejudice.

1-39. (Cancelled)

40. (Previously Presented) A nucleic acid molecule encoding a heregulin variant having an amino acid sequence not found in nature and the ability to bind an ErbB receptor, wherein

said variant comprises a methionine residue in place of amino acid residues corresponding to residue numbers 228 to 231 of native human heregulin- β 1 (SEQ ID NO: 93) numbered from the N-terminus and

said heregulin variant comprises a portion that is at least 70% identical to the portion from about residue 175 to about residue 230 of native human heregulin- β 1 (SEQ ID NO: 93),

said heregulin variant having a greater specificity for the ErbB-4 receptor, relative to the ErbB-3 receptor, than a heregulin that differs from the heregulin variant only in that the heregulin comprises said amino acid residues corresponding to residue numbers 228 to 231 in place of said methionine.

41. (Previously Presented) The nucleic acid molecule of claim 40, said heregulin variant additionally comprising the amino acid substitution H178L.

42. (Previously Presented) The nucleic acid molecule of claim 40, wherein said heregulin is a human heregulin.

43. (Previously Presented) The nucleic acid molecule of claim 42, wherein said human heregulin is heregulin- β 1.

44. (Previously Presented) The nucleic acid molecule of claim 40, wherein said heregulin variant is a fragment.

45. (Previously Presented) The nucleic acid molecule of claim 44, wherein said fragment comprises residues corresponding to a portion of human heregulin- β 1 extending from about residue 175 to about residue 245.

46. (Previously Presented) A vector comprising the nucleic acid molecule of claim 40.

47. (Previously Presented) A host cell comprising the vector of claim 46.

48. (Previously Presented) A method of producing a variant of a heregulin, said method comprising:

- (a) culturing the host cell of claim 47 under conditions that allow expression of the heregulin variant; and
- (b) recovering the heregulin variant from the culture.

49. (Cancelled)

50. (Cancelled)

51. (Previously Presented) A composition comprising the heregulin variant of claim 40 and a pharmaceutically acceptable carrier.

52-68. (Cancelled)